

## CLAIMS

What is claimed is:

1. A cosmetic treatment process for improving the epidermal barrier function of the skin, scalp and mucous membrane, the process comprising providing a substrate to be treated, and topically applying a preparation containing at least one substance which modulates tight junctions.
2. A cosmetic treatment process for improving the epidermal barrier function of the skin, scalp and mucous membrane, the process comprising providing a substrate to be treated, and topically applying a preparation containing at least one substance which modulates occludin and/or claudins.
3. A cosmetic treatment process for improving the epidermal barrier function of the skin, scalp and mucous membrane, the process comprising providing a substrate to be treated, and topically applying a preparation containing at least one substance which modulates the Zona occludens through the proteins ZO-1, ZO-2 and/or ZO-3.
4. A cosmetic preparation comprising: (a) at least one substance selected from the group consisting of compounds which modulate tight junctions, compounds which modulate occludin and/or claudins, compounds which modulate the Zona occludens through the proteins ZO-1, ZO-2 and/or ZO-3; and (b) a compound selected from the group consisting of UV protection factors and antioxidants.